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EXAMINER

LAMB, TWYLER MARIE

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/624,955

Applicant(s)

MURATA, KAZUYUKI

Examiner

Twyler M. Lamb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/719,796.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6, 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No.

08/719,796, filed on 9/25/1996. ***Specification***

2. The abstract of the disclosure is objected to because it is too long. The abstract should not exceed 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 47 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 47 recites the limitation "a removable storage medium" in line 2. It is unclear as to whether this "a removable storage medium" refers to the same one mentioned in claim 46.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 31, 32, 34, 39, 40, 41 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagashima (US 4,719,516).

With regard to claim 31, Nagashima discloses a printer (digital image processing unit 2) comprising: means (printer 23) for printing an image according to image data (col 2, lines 55-56); means (non-volatile storage I/F 207) for retrieving (col 4, lines 19-26) output control data (col 2, line 64 –col 3, line 1) and image data (col 2, line 64 –col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the means for retrieving (non-volatile storage I/F 207) (col 4, lines 19-26); means (operations circuit 25) for setting an operation condition of said printing means according to the output control data (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and means (system controller 20) for controlling the printing means according to the operation condition so that the printing means can print an image according to the image data (col 4, lines 4-18); wherein data reading from the removable storage medium (non-volatile storage 3) is enabled and data writing to the medium is disabled when the medium is connected to the printer (which reads on a write-in inhibit (col 4, lines 19-64).

With regard to claim 32, Nagashima also discloses wherein the removable storage medium is a memory card (col 2, lines 59-61; col 3, lines 18-22).

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With regard to claim 34, Nagashima also discloses a means (erasable PROM) for erasing the image data and output control data stored in the removable storage medium, after printing the image data (which reads on the non-volatile storage being composed of an electrically erasable PROM and instructing whether an erasure of program or data is possible according to the stored content, and making it selectable) (col 3, lines 18-22; col 4, lines 29-34).

With regard to claim 39, Nagashima discloses a method for performing operations on a printer (digital image processing unit 2) (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18), comprising the steps of: retrieving (col 4, lines 19-26) output control data (col 2, line 64 –col 3, line 1) and image data (col 2, line 64 –col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the printer (digital image processing unit 2); setting a printing condition according to the output control data (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and printing an image on a print medium based on the image data according to the printing condition data (col 4, lines 4-18); wherein data reading from the removable storage medium (non-volatile storage 3) is enabled and data writing to the medium is disabled when the medium is connected to the printer (which reads on a write-in inhibit (col 4, lines 19-64).

With regard to claim 40, Nagashima also discloses a step of storing the image data in the removable storage medium (col 2, line 61 – col 3, line 1).

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With regard to claim 41, Nagashima also discloses a step of erasing the image data stored in the removable storage medium, after printing the image data (which reads on the non-volatile storage being composed of an electrically erasable PROM and instructing whether an erasure of program or data is possible according to the stored content, and making it selectable) (col 3, lines 18-22; col 4, lines 29-34).

With regard to claim 43, Nagashima also discloses a step of erasing output control data stored in the removable storage medium, after printing the image data (which reads on the non-volatile storage being composed of an electrically erasable PROM and instructing whether an erasure of program or data is possible according to the stored content, and making it selectable) (col 3, lines 18-22; col 4, lines 29-34).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 33 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagashima (US 4,719,516) in view of Sakata et al. (Sakata) (US 5,105,284).

With regard to claim 33, Nagashima differs from claim 33 in that he does not clearly teach compressed image data is stored in the removable storage medium and the printer further comprises means for expanding the compressed image data read out from the removable storage medium.

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Sakata discloses a digital copier wherein compressed image data is stored in the removable storage medium (col 10, lines 6-36) and the printer further comprises means (DMAC) for expanding the compressed image data read out from the removable storage medium (col 11, lines 1-4).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein compressed image data is stored in the removable storage medium and the printer further comprises means for expanding the compressed image data read out from the removable storage medium as taught by Sakata. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Sakata to enhance the storage capacity of the image data by storing it in a compressed format as taught by Sakata in col 10, lines 13-36.

With regard to claim 42, Nagashima differs from claim 42 in that he does not clearly teach the steps of storing image data as compressed image data in the removable storage medium; and reading the image data from the removable storage medium by expanding the compressed image data.

Sakata discloses a digital copier wherein the steps of storing image data as compressed image data in the removable storage medium (col 10, lines 6-36) and reading the image data from the removable storage medium by expanding the compressed image data (col 11, lines 1-4).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein the steps of storing image data as

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compressed image data in the removable storage medium; and reading the image data from the removable storage medium by expanding the compressed image data as taught by Sakata. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Sakata to enhance the storage capacity of the image data by storing it in a compressed format as taught by Sakata in col 10, lines 13-36.

9. Claims 35-38 and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagashima (US 4,719,516) in view of Itoh (US 5,923,437).

With regard to claim 35, Nagashima discloses a printer (digital image processing unit 2) comprising: means (printer 23) for printing an image according to image data (col 2, lines 55-56); means (non-volatile storage I/F 207) for retrieving (col 4, lines 19-26) output control data (col 2, line 64 –col 3, line 1) and image data (col 2, line 64 –col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the means for retrieving (non-volatile storage I/F 207) (col 4, lines 19-26); means (operations circuit 25) for setting an operation condition of said printing means according to the output control data (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and means (system controller 20) for controlling the printing means according to the operation condition so that the printing means can print and image according to the image data (col 4, lines 4-18).

Nagashima differs from claim 35 in that he does not clearly teach a sorter for sorting printed paper; and means for controlling the sorter according to output control data stored in the removable storage medium.

Itoh discloses an image processing apparatus wherein a sorter (sorter 220) for sorting printed paper (col 3, lines 56-59); and means (CPU {not shown}) for controlling the sorter according to output control data stored in the removable storage medium (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a sorter for sorting printed paper; and means for controlling the sorter according to output control data stored in the removable storage medium as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to 36, Nagashima as modified differs from claim 35 in that he does not clearly teach a means for storing information of functions of the printing means and sorter into the removable storage medium so that the information can be used by an external equipment for generating output control data.

Itoh discloses an image processing apparatus wherein a means (computer equipment 901) for storing information of functions of the printing means and sorter into the removable storage medium (external storage device 902) so that the information

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can be used by an external equipment (external apparatus 3) for generating output control data (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a means for storing information of functions of the printing means and sorter into the removable storage medium so that the information can be used by an external equipment for generating output control data as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 37, Nagashima discloses a printer (digital image processing unit 2) comprising: means (printer 23) for printing an image according to image data (col 2, lines 55-56); means (non-volatile storage I/F 207) for retrieving (col 4, lines 19-26) output control data (col 2, line 64 –col 3, line 1) and image data (col 2, line 64 –col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the means for retrieving (non-volatile storage I/F 207) (col 4, lines 19-26); means (operations circuit 25) for setting an operation condition of said printing means according to the output control data (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and means (system controller 20) for controlling the printing means according to the operation condition so that the printing means can print and image according to the image data (col 4, lines 4-18).

Nagashima differs from claim 37 in that he does not clearly teach a finisher for stapling printed paper; and means for controlling the finisher according to output control data stored in the removable storage medium.

Itoh discloses an image processing apparatus wherein a finisher (not shown in figures but because stapling can be performed the finisher is inherent) for stapling printed paper (col 5, lines 19-64; col 8, lines 18-22); and means (CPU {not shown}) for controlling the finisher according to output control data stored in the removable storage medium (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a finisher for stapling printed paper; and means for controlling the finisher according to output control data stored in the removable storage medium as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 38, Nagashima as modified differs from claim 38 in that he does not clearly teach a means for storing information of functions of the printing means and finisher into the removable storage medium so that the information can be used by an external equipment for generating output control data.

Itoh discloses an image processing apparatus wherein a means (computer equipment 901) for storing information of functions of the printing means and finisher

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into the removable storage medium (external storage device 902) so that the information can be used by an external equipment (external apparatus 3) for generating output control data (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a means for storing information of functions of the printing means and finisher into the removable storage medium so that the information can be used by an external equipment for generating output control data as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 44, Nagashima discloses a method for performing operations on a printer (digital image processing unit 2) (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18), comprising the steps of: retrieving (col 4, lines 19-26) output control data (col 2, line 64 –col 3, line 1) and image data (col 2, line 64 –col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the printer (digital image processing unit 2); setting a printing condition according to the output control data (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and printing an image on a print medium based on the image data according to the printing condition data (col 4, lines 4-18).

Nagashima differs from claim 44 in that he does not clearly teach sorting the print medium with a sorter according to the output control data.

Itoh discloses an image processing apparatus wherein a sorter (sorter 220) for sorting printed paper (col 3, lines 56-59); and sorting the print medium with a sorter according to the output control data (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein sorting the print medium with a sorter according to the output control data as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 45, Nagashima as modified differs from claim 45 in that he does not clearly teach a step of storing information of functions of the printer and the sorter into the removable storage medium so that the information can be used by external equipment for generating output control data.

Itoh discloses an image processing apparatus wherein a step of storing information of functions of the printer and the sorter into the removable storage medium so that the information can be used by external equipment for generating output control data (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a step of storing information of

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functions of the printer and the sorter into the removable storage medium so that the information can be used by external equipment for generating output control data as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 46, Nagashima discloses a method for performing operations on a printer (digital image processing unit 2) (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18), comprising the steps of: retrieving (col 4, lines 19-26) output control data (col 2, line 64 –col 3, line 1) and image data (col 2, line 64 –col 3, line 1) stored in a removable storage medium (non-volatile storage 3) (col 2, line 64 –col 3, line 1) when the medium is connected to the printer (digital image processing unit 2); setting a printing condition according to the output control data (which reads on executing the programs stored in non-volatile storage 3) (col 4, lines 11-18); and printing an image on a print medium based on the image data according to the printing condition data (col 4, lines 4-18).

Nagashima differs from claim 46 in that he does not clearly teach stapling the print medium with a finisher according to the output control data.

Itoh discloses an image processing apparatus wherein a finisher (not shown in figures but because stapling can be performed the finisher is inherent) for stapling printed paper (col 5, lines 19-64; col 8, lines 18-22); and stapling the print medium with a finisher according to the output control data (col 5, lines 19-64).

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Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima stapling the print medium with a finisher according to the output control data as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Itoh in col 5, lines 19-64.

With regard to claim 47, Nagashima as modified differs from claim 47 in that he does not clearly teach a step of storing information of functions of the printer and the finisher into a removable storage medium so that the information can be used by external equipment for generating output control data.

Itoh discloses an image processing apparatus wherein a step of storing information of functions of the printer and the finisher into a removable storage medium so that the information can be used by external equipment for generating output control data (col 5, lines 19-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima wherein a step of storing information of functions of the printer and the finisher into a removable storage medium so that the information can be used by external equipment for generating output control data as taught by Itoh. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nagashima by the teaching of Itoh so that the output

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job file can be constructed with all the output modes in place at a site independent of the printing device as taught by Ioth in col 5, lines 19-64.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Twyler Lamb whose telephone number is 703 - 305-8823. The examiner can normally be reached on M-TH (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 703-305-4712. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-6036 for regular communications and 703-872-9314 for After Final communications.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

(703) 872-9314

(for informal or draft communications, such as proposed amendments to be discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

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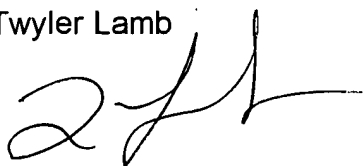
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Twyler Lamb

A handwritten signature in black ink, appearing to read 'Twyler Lamb', with a stylized, cursive script.

November 15, 2002